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ABSTRACT

Stressing the application of progressive thought as a possible innovation toward development in developing countries, the paper discusses three major educational philosophies: romanticism, cultural transmission, and progressivisim (emphasizing the cognitive-developmental theory). Educational innovation and strategies for reform in the Soviet Union and the United States are discussed, along with differences between Soviet and Western education. Two stages in determining whether a country is ready for reform are addressed: Phase 1--Awareness and Transition--is characterized by a demand for knowledgeable manpower, supply of skilled manpower, design for increased equity, and resources for transition and Phase 2--Return to Learning--is characterized by a technological and legal change, information for innovation, and motivation for reform. The paper focuses on the political economy of education for development, examines the failure of the present system, and provides examples of victims of the failure and the effort being made to alleviate the situation, e.g., China's barefoot doctors and the problem-posing method used in Brazil's national literacy program. The paper concludes that failure of systems to respond to the needs of developing nations is accentuated by the fact that educational institutions in these nations have been borrowed from developed countries without any acquisition of an indigenous character as mentioned in a December 1974 working paper by the World Bank Education Department. (NQA)

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Three major philosophies of education have been discussed; however, the present paper stresses the application of the progressive thought as a possible innovation toward development in the developing countries.

Educational innovation and strategies for reform are considered as the core of this discussion. The third part of the discussion focuses on the Political Economy of Education for Development and examines the failure of the present system. It also provides examples of those who are victims of the failure and the effort being made to alleviate the woeful situation.

In conclusion, Atta-Safoh stresses that the failure of the systems in response to a country's needs is accentuated by the fact that educational institutions have been borrowed from developed countries without any acquisition of an indigenous character as mentioned in December 1974, by some staff members of the World Bank within the Education Department.

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EDUCATION FOR COPEABILITY: PERSPECTIVE ON THE DEVELOPING WORLD

Introduction

It is enough to argue that organized education is one of the essential elements in the process that characterized the transmutation to modernity. Western society for the past 300 years has been caught up in a fire storm of change. This storm far from abating appears to be gathering force. Change sweeps through the highly industrialized countries with waves of constant accelerating speed and unprecedented impact. It spawns in its wake all sorts of curious social flora—from psychedelic churches and "free universities" to science cities in the artic and wife—swap clubs in California (Toffler, 1970, p.11). However, the attempt to transplant the Western pattern of educational system into the developing world without giving a deep consideration to the ecological differences that exist in the two vast areas is a failure in itself. Nonetheless, nothing stops the educators of the developing countires from studying the systems of education of the West in so far as peoples all over the world have developed the desire to make the world one large community where each and everyone can make a contribution toward development. Our inability to develop as a nation or individuals, understand and appreciate patterns of culture and different languages spoken throughout the universe calls for a positive attitude and total embracement of formal education which will bring all persons to a common ground for a better understanding through interaction. Does this mean that educators from the developing countries should lose sight of the political, economic and social life pattern of our own societies? It is not untrue that many educators from the developing world have caused a big blunder by attempting to duplicate most of the educational systems which are only applicable to the people in the West for several reasons. Regardless of its impact on our society our educational planners seem to be less sensitive to the issue. Such a mistake is not limited to our educational policy makers only, but it is also in reference to all our leaders including those in the political arena.

The most sensitive area to be mentioned is Curriculum and Development. The curriculum should be organized in terms of social values not exclusively concerned with immediate behavior changes of society. Despite our mistakes we should not give up, instead we should make use of our past experience because the great thing in the world is not so much where one stands but as in what direction we are moving. To the educators who are already disillusioned, frustrated and suffering from "stagnation", I wish to emphasize, In great attempts it is glorious even to fail, said Longinus.

Philosophy of Education

Education cannot be understood except in the context of the culture which education reflects and upon which education in turn exerts its influence. The greatest error that educators can make is to assume that education is an isolated or cloistered institution to be interpreted by itself without regard for the cyclonic forces sweeping the earth. My thesis is that the critical examination, reformation and reconstruction of a "practical" education in the developing world is capable of transforming the entire situation into a state of self-reliant.

In this dramatic setting we may now turn to the major philosophies of education that aim to build organic unity for man and civilization—to provide synthesis and meaning to one's life. We may adopt the terms used by Kohlberg and Mayer: "romanticism," "cultural transmission" and "progressivism" as symbolic pegs for those positions. The present paper would like to emphasize only those when put to practical use, will induce development in the Developing World.

Romanticism

The "romantic" stream of thought starts with Rousseau and is currently

represented by the followers of Freud and Gesell. The Romantics hold that what comes from within the child is the most important aspect of development; this means the pedagogical environment should be permissive enough to allow the inner "good" (abilities and social virtues) to unfold and the inner "bad" to come under control. This is to say that teaching the child the ideas and attitudes of others through drilling would be meaningless learning and the supression of inner spontaneous tendencies of positive value.

Romantics stress the biological metaphors of "health" and "growth" in equating optimal physical development with bodily health and optimal mental development with mental health. Early education should allow the child to work through aspects of emotional development not allowed expression at home, such as the formation of social relations with peers and adults other than his parents. It should also allow the expression of intellectual questioning and curiosity. This is to recognize that the 19th century discovery of the natural development of the child was part of a larger romantic philosophy, an ethnic and epistemology involving a discovery of the natural and the inner self. This philosophy also reveals a valuing of childhood to which the origins of the self could be traced. The adult, through taking the child's point of view, could experience otherwise inaccessible elements of truth, goodness and reality.

Kohlberg and Mayer quoted Mead saying: The romantic comes back to the existence of the self as the primary fact. That is what gives the standard to values. What the Romantic period revealed was not simply a past as a point of view from which to come back at the self . . . it is this self-conscious setting-up of the past gain that constitutes the origin of romanticism (p.452).

Cultural Transmission

Cultural transmission also known as the essentialism builds education upon the

foundations of the "classical curriculum." Traditional educators believe that their primary task is the transmission to the present generation of bodies of information, rules or values collected in the past. They believe that the educator's responsibility is the direct instruction of such information and rules. The emphasis is on the view that educating consists of transmitting knowledge, skills and social and moral rules of the culture. Such knowledge may be rapidly changing or may be static. In either case, it is assumed that education is the transmission of the culturally given.

Innovative variations of the cultural transmission view are represented by educational technology and behavior modification. These approaches assume that knowledge and values first located in the culture are later internalized by children through the initiation of adult models or through explicit instruction, reward and punishment. Both the traditionalist and technologist assume that what is learned and valued in education is a culturally given body of knowledge and rules. There are contrasts between the traditional academic and educational technology variations of the cultural transmission ideology. The traditional academic school has been humanistic since it has emphasized the transmission of knowledge considered central to the culture of the Western man. The educational technology school has been humanistic in the sense that it has emphasized the transmission of skills and habits deemed necessary for adjustment to a technological society. The traditionalist sees literacy as the central avenue to the culture of Western man, whereas the technologist sees it as a means to vocational adaptation to a society depending on impersonal information codes. Both approaches emphasize definition of educational goals in terms of fixed knowledge or skills assessed by standards of cultural correctness. Both stress internalization of basic moral rules of the culture.

In contrast to the child-centered romantic school, the cultural transmission school is society-centered. It defines educational ends as the internalization of the values and knowledge of the culture. The cultural transmission school focuses on the child's need to

learn the discipline of the social order, while the romantic stresses the child's freedom. The cultural transmission view emphasizes the common and the established, the romantic view stresses the unique, the novel and the personal.

Progressivism

This ideology holds the view that education should nourish the child's natural interaction with a developing society. Brameld's Education for the Emerging Age (1961) states clearly that "progressivism" is the kind of philosophy which stimulates people to think with effectiveness; to think is to analyze, to criticize, to select between alternatives and to venture solutions upon the basis of both analysis and selection. Kohlberg and Mayer mentioned that the progressives define development as a progression through invariant ordered sequential stages. The educational goal is the eventual attainment of a higher storage of development in adulthood. To confirm this let us turn to the suggestion of Dewey and McLellan (1895):

Only knowledge of the order and connection of the stages in the development of the psychical functions can insure the full maturing of the psychical powers. Education is the work of supplying the conditions which will enable the psychical functions, as they successively arise, to mature and pass into higher functions in the freest and fullest manner (p.454).

In the progressive view, this aim requires an educational environment that actively stimulates development through the presentation of resolvable but genuine problems or conflicts. For progressives, the organizing and developing force in the child's experience in the child's experience is the child's active thinking, stimulated by problematic and cognitive conflict. Although the progressive and the cultural transmission emphasize "knowledge" only the former sees the acquisition of knowledge as an active change in patterns of thinking brought about by experiential problem-solving

situations. Both views emphasize "morality" but the progressive sees the acquisition of morality as an active change in patterns of response to problematic social situations rather than the learning of culturally accepted rules.

The progressive educator stresses the essential links between cognitive and moral development; he assumes that moral development is not sufficient condition for moral development even though it is necessary. The development of logical and critical thought, central to cognitive education, finds its larger meaning in a broad set of moral values. The progressive also points out that moral development arises from social interaction in situations of social conflict. Morality is neither the internalization of established cultural values nor the unfolding of spontaneous impulses and emotions; it is justice, the reprocity between the individual and others in his social environment.

Psychological Theory

Although the three psychological theories described represent three basic metaphors of development, the present paper will discuss the cognitive-developmental metaphor, which in the opinion of the writer, is very much relevant to the issue at stake.

The cognitive-developmental metaphor is dialectical, but not material as compared to the others. Plato, first elaborated it, Hagel gave a new meaning to it and was finally claimed metaphysical by John Dewey and Jean Piaget to form a psychological method. This theory claims that a core of universal ideas are redefined and recognized as their implications are played out in experience and as they are confronted by their opposites in argument and discourse. These reorganizations define qualitative levels of thought, levels of increased epestemic adequacy. The core of the claim is that the child is neither a plant nor a machine, he is a philosopher. Discording the dichotomy between maturation and environmentally determined learning, Piaget and Dewey claim that mature thought emerge through a process of development - neither direct bilogical

maturation nor direct learning, but rather a reorganization of psychological structures resulting from organism-environment interactions. Basic mental structure is the product of the patterning of interaction between the organism and the environment rather than a direct reflection of either innate neurological patterns or external environmental patterns.

Piaget-Dewey concept of cognition are assumed to structures, internally organized wholes or systems of internal relations. These structures are rules for the processing of information or the connecting of events. Events in the child's experience are organized actively through these cognitive connecting process, not passively through external association and repetition. Cognitive development which is defined as change in cognitive structures, most probably depends on experience. It is a dialogue between the child's cognitive structures and the structures of the environment. Furthermore, the theory stresses the core of development as cognitive change in distinctively human, general patterns of thinking about the self and the world. The child's relation to his social environment is cognitive, it involves thought and symbolic interaction.

Since cognitive-developmental theory emphasizes ways of perceiving and responding to experience, it discards the traditional dichotomy of social versus intellectual development. Instead, cognitive and affective development are parallel aspects of the structural transformations which take place in development. Also, at the core of this theory is the doctorine of cognitive stages which this paper will not discuss for the sake of brevity. The cognitive-developmental theory assures that basic mental structure results from an interaction between organismic structuring tendencies and the structure of the outside world, not reflecting either one directly. This interaction leads to cognitive stages that represent the transformations of early cognitive structures as they are applied to the external world and as they accommodate to it.

Progressive ideology rests on the value postulates of ethical liberalism. This position rejects traditional standards and value-relativism in favor of ethical universals.

It further recognizes that value universals are ethical principles formulated and justified by the method of philosophy and not simply by the method of psychology. The ethical liberal position favors the active stimulation of the development of these principles in children. These principles, are presented through a process of critical questioning which creates an awareness of the ground and limits of rational assent; they are also seen as relevant to universal trends in the child's own social and moral development. The liberal recognition of principles as principles, clears them from confusion with psychological facts.

The liberal school recognizes that ethical principles determine the ends as well as the means of education. There is great concern to provide equality of educational opportunity and allow freedom of belief and also to educate for the emergence of free and just people from the schools. For the liberal, the principle of response for liberty is in itself defined as a moral aim of education. While the teacher is to respect the rights of the child, he must as well be concerned with the stimulation of the child's development so that he may grow to respect and defend his own rights and the rights of others.

According to Dewey and McLellan (1895), recognition of concern for liberty as a principle leads to an explicit libertarian conception of moral education.

Summing up, Kohlberg and Mayer stressed that every teacher requires a sound knowledge of ethical and psychological principles—Only psychology and ethics can take education out of the rule-of-thumb stage and elevate the school to a vital, effective institution in the greatest of all constructions—the building of a free and powerful character.

The progressives advocate a strong rather than weak application of liberal principles to education. Consistent application of ethical principles to education means that education should stimulate the development of ethical principles in students. In regard to ethical values, the progressive ideology adds the postulates of development and

democracy to the postulates of liberalism. The notion of educational democracy is one in which justice between teacher and child means joining in a community in which value decisions are made on a shared and equitable basis, rather than non-interference with the child's value-decisions. Because ethical principles function as principles, the progressive ideology is "democratic" in a sense that romantic and cultural transmission ideologies are not. The progressive is non-elitist because he attempts to get all children to develop in the direction of recognizing the principles he holds. You may ask: Is this not indoctrinative? For the progressive, this is free from indoctrination because the development of these principles is natural since they are not imposed on the child but rather he chooses them himself. A similar developmental approach is taken toward intellectual values. In the view of the progressive, intellectual education is not merely a transmission of information and intellectual skills, it is communication of pattern of judgment or problem-solving. Besides, there are overlapping rationales for intellectual and ethical education. In an attempt to expose the child to opportunities for reflective scientific inquiry the teacher is guided by the principles of scientific method which the teacher himself accepts as the basis of rational reflection.

The problem of indoctrination is also resolved for the progressive by the concept of democracy. A concern for the child's freedom and indoctrination is part of a concern for the child's freedom from indoctrination is part of a concern for the child's freedom to make decisions and act meaningfully. Freedom, in this regard, means democracy, i.e., power and participation in a social system which recognizes equal rights.

Cognitive-developmental theory postulates a formal internal standard of adequacy which is not merely an order of events in time. It merely elaborates the term "development" as defined by Webster's Dictionary. To develop means to "make active," to move from one original position to one providing more opportunity for effective use, to cause to grow and differentiate along lines natural of its kind; to go through a process of natural growth, differentiation, or evolution by successive changes." This undoubtedly

suggest an internal standard of adequacy governing development; it implies that development is not just any behavior change, but a change toward differentiation, integration and adaptation. Cognitive-developmental psychological theory postulates that movement through a sequential progression represents movement from a less adequate psychological state to a more adequate psychological state. The existence of this "internal standard of adequacy" is suggested by studies which show that the child prefers thinking at the next higher moral or logical stage to thinking at his own stage, or at lower stages. It is believed that the child moves in that direction under normal conditions of stimulation.

The Need for Educational Reform

Education can and should dedicate itself centrally to the task of reconstructing a culture which, left unconstructed, will almost certainly collapse of its own frustrations and conflicts (Brameld, 1961).

Noah Webster affirmed that the role of education is so central to the making of a free government that education is the most important business in civil society and that universal accessibility to education, as to wealth, is a fundamental support of republican government... Quoting Tacitus, Webster went on:

Education, in a great measure forms the moral characters of men, and morals are the basis of government. Education should therefore be the first care of a legislature, not merely the institution of schools but the furnishing of them with the best of men for teachers. A good system of education should be the first article in the code of political regulations, for it is much easier to introduce and establish an effectual system for perceiving morals than to correct by penal statutes the ill effects of a bad system (Teachers College Record, LXXV, 2, December 1973).

The aim of education, in fact, the aim of life is to work joyfully and to find

happiness (Havard Educational Review, XLII, 4, November 1972).

Theory of Reform

The reform of any kind of social institution has not been an easy task; this includes the institutions of mass education. Two theories of educational reform define the set of options that countries face. The first states that educational structures and processes reflect social and economic forces. This is the theory of the structuralist. If it is accepted as being correct, it therefore follows that economic and social changes have to precede major educational reforms. Under this theory potential reformers can only wait for the preconditions to be met and in the interval study and experiment with what are the major promising reforms.

The progressive theorist does not make any assumptions about the interrelationship of the nature of formal education to other social forces. It rather assumes that the educational sector is capable of designing and implementing basic reforms without pressures from the society.

The history of educational reform, both in the rich and poor countries, provides more evidence for the structuralist theory. The evidence indicates that innovations, but not reforms, are possible under the progressive theory. The industrial revolution, installation of democratic governments, or the imposition of colonial rule brought major reforms to existing educational systems. In the post World War II era in the developing countries, educational reforms have usually taken place with the rise of new regimes having a greater commitment to alleviating poverty than previous ones. Examples of such cases are Peru, Cuba, China and Tanzania (Simmons, 1978).

I am sure some readers may be disappointed that I have not discussed or recommended specific educational innovations or reforms. The two obvious reasons are: (a) the writer knows virtually nothing about the cost effectiveness of seemingly

attractive ideas that are now being proposed toward educational development. (b) The process of learning about their potential utility is an essential dimension to whether or not a country should consider adapting them and is the major responsibility of that particular country. It must be noted by all leaders involved in educational policymaking that learning systems cannot be imported like bulldozers, and then be put to any effective use.

The Soviet Union, Marxism and A Mixture of Marxism and the Old Russia

To be able to embark upon a meaningful system of education, educators in the developing countries must take a bold stand toward educational revolution or reform and adopt strategies for reformation.

"Education is the key that unlocks the door to modernization. Statements such as this one are gaining acceptance as truism by many nation builders, policy planners and scholars interested in the process of modernization. Once regarded as an essentially conservative culture-preserving, culture transmitting institution, the educational system now tends to be viewed as the master determinant of all aspects of change (Coleman, 1971).

It is true that colonialism has helped in reducing the developing world to chaos and to poverty but does it mean that we should stay where we are? The war, the Revolution and the civil war reduced Russia to chaos and poverty. But when her educational system was reconstructed, despite two major changes, the fundamental structure of strong academic schools leading to the universities was maintained. Some teachers were purged - many more were to be purged in the Stanlist persecution - but observers were continually surprised, and are surprised today, by the extent to which the strong discipline of the European classical gymanisium has remained. Even the Soviet emphasis on science and technology had its origin in the German schools

which were copied in Russia. However, the Soviet state introduced two major changes into Russia, changes which were rapidly to transform the education system. In the first place, a mass attack on illiteracy was begun. It remains a mystery today how far this process was a propaganda device rather than a reality, and how it was organized in practice. Nevertheless, the overwhelming fact remains that three decades after the Revolution (during which Russia was twice devastated, and possibly twenty million were killed, the Stanlist terror existed, and the Second World War took place), illiteracy among the young people was ended and universal education was introduced. Nobody really knows how this came about, but in part it was the enthusiasm of the members of the Communist Party, who organized night schools, schools in factories and farms for the workers and their wives. In part, the dispossessed bourgeoisie was available to work in the newly created schools. Whatever educated women that could be found in the villages were given huts in which to open schools. The problems of organization and of finance were enormous, but were partly overcome by the strong discipline of the Communist Party and partly by paying the teachers directly from the produce of the enterprises, especially the farms, where they worked. Above all, the strategy of the education service appears to have been splendidly organized from the beginning. The Soviet republics, first created teacher training institutions wherever possible. People with some educational background were turned into teachers. This approach was emphasized and was later followed by the development of universities and other institutions of higher learning.

It will be realized that the process of introducing education to the masses of the Soviet people repeats with obvious variations, the history of American education. The latter also gave teacher training a higher priority at an early stage; there too the village school marm lived on the produce of the local farms; the communities built their school houses; the enthusiasm of the local people through

the town meeting and state government created a nation-wide drive toward literacy among immigrant groups. The differences lie in the absence of a cultural strategy in the United States and the presence of a strong, highly organized Communist Party in the Soviet Union.

When Lenin's wife Krupskaya became the dominant influence in the Soviet education, her views like many others in the early days of the Soviet government became thought of as "progressive" in the demotic sense of the word. Russia introduced divorce by post-card, abortion was made freely available, and in education Dewey's doctrines became the standard text - progressive education permissive, non-selective and child-centered, became the order of the day. Perhaps some of this tradition lingers on still, as the acknowleged importance of the child in Soviet society and the whole emphasis of the Soviet Union is laid upon treating children as individuals, with rights which must be respected. It is certainly a feature of Soviet education today that emphasis is laid upon the importance of the nursery schools and upon the early socialization of children. The school has been concerned to raise the standard of living of the children relative to other age groups. In part, the Soviet desire to do this stems from bad housing conditions and shortages of food. John Vaizey (1967) continued to say that Soviet children were kept at school and fed at school, in order to save them from the one room or the part of the one room where their family lived and from the hardships that affected the adults. Medical care was given to them through the school on similar grounds. Emphasizing his claim, Vaizey stressed that the provision of communal facilities for children was a direct part of the Soviet attempt to improve the status of women. Women were urged to take jobs and to become educated. The Soviet Union after all is the society where the status of women is highest - there are more women doctors, women teachers and women engineers than most advanced countries including the United States. Part of the reason for the success of Soviet women in

achieving equal rights lies in the adequate provision of facilities for the care of their children while they are at work. As labor shortages developed in the Soviet Union because of the policy of using all available people in the productive process (a process now known not to be wholly successful), one of the dominant motives in Soviet education became the release of women for work and the use of the education service itself as the dominant provider of skills. The emphasis of Soviet psychology is upon cooperation. The 1958 Kruschev reforms were concerned with developing a system where every student except the most gifted was given work experience between the ages of fourteen and twenty, so that the divisions between the intelligentsia and the rest of Soviet society would not develop. An obvious cause of the reform was the shortage of labor. The Soviet Union was feeling the effects of the incredible labor losses and low birth rates of the Second World War at the time it was introduced. In consequence, the Soviet felt it necessary to eat the seed corn by putting its students to work. In the United Stated too it is common for students to work. This tradition of working while studying shows that one is not too proud to soil his hands. It is another way of financing students in the course of their studies. In technological studies, Britain and some parts of Western Europe lay emphasis on the need for practical experience and theoretical study to go hand in hand, such has always been the case in which professional qualifications in nursing and teaching were acquired.

Perhaps the most distinctive feature of Soviet education has been the way in which expansion has been controlled and centrally developed while at the same time releasing local support and initiative. This is a major tribute that must go to the Communist Party. The central organization of education has been a feature of European education, the strength of local initiative has been a feature of American schools, but the mixture of the two in the Soviet Union is virtually unique.

The United States

The first is the concept that education should be a community responsibility. The typical American school or college was the financial responsibility of the locality long before it became common elsewhere. Laws on the development of education came earlier in the United States than in most European countries. This has given American education a tradition of relative abundance which, added to the generally relatively high standard of living, has given it a particular flavor. In addition, the school was built for all the people in the locality, except in the South where class distinctions existed. On the whole schools for the average American were common. The situation in Europe was very different, there was separation of schools for the poor and for the rich. There has been a long tradition of sex-equality in education in the United States.

Another tendency in American education which has been prominent for over a century is the crucial relationship of the American school to the training of the American labor force in skills at all levels. Not only at the universities was the need for lawyers, engineers and doctors satisfied through the universities but at secondary and elementary levels the development of skills of all kinds, particularly in agriculture, was a fundamental task of the education system. It was this tendency that made the Land Grant Colleges particularly important. The United States has had a nation-wide system of universities available to all people (built quite largely on the tradition of the teacher training colleges) as well as on the Land Grant Colleges for more than a hundred years. All these tendencies have combined to make an American education system which is both relatively lavishly provided, which is available to all the people and made use of by all social groups, which tends to be non-sectarian and co-educational, which has a tradition of

orientation towards practical skills, and which culminates in a university available to all people.

Differences Between Soviet Education and Western Education

Neil O'Connor makes a useful summary of the two education systems:

Soviet educational psychology is clearly directed toward maximizing effectiveness of education. It would be fair to say that this is true of any professional educational psychologist anywhere. However, there is also no doubt that in England (for example) the emphasis arising from a long line of human genetics research, including the genetics of intelligence has put a premium on ability differences ... However, within limits, both East and West have the same aims, namely to increase the effectiveness of educational techniques. There has been, however, a very different social milieu behind the two, and this has led to much greater educational opportunities in the Soviet Union than in England. In addition, some of the assumptions based on the concepts of inherited intelligence have been rejected officially in Russia, whereas they are only now being gradually elimited in England by trial and error. The psychologist's information in the two countries is, however similar in its general findings although, of course, very different in detail. One might say that in both countries the basic physiological nature of individual differences is admitted, but in England such differences are regarded as major factors, whereas in the Soviet Union they are seen only as foundations on which buildings of many different kinds can be constructed .. It is when consideration is given to school practice that the wide social differences between a class and a classless society begin to appear. In the USSR, given a relatively intact nervous system, potential equality of scholastic achievement is

assumed. Strenuous efforts are also made to aid teachers to achieve such relative parity, and psychologists participate in such activities. In England no such assumption is made, and headmasters are still frequently wedded to the notion of innate difference. Psychologists also accept individual differences in patterns of abilities as relatively unchangeable. However, these matters of opinion, whilst weighting practice heavily in one direction or another and influencing research, are also frequently modified by research findings. It is thus impossible to maintain any longer in England that selection techniques are an adequate basis for useful selection at the age at which they are used (John Vaizey,1967, p.123).

It is not my intention to pinpoint a particular system either from the East or West for adaptation, however, based on the progressive ideology, we, in the developing countries can as well revolutionize or reform our systems in the way that we can also maximize the effectiveness of education.

It must be noted that the sort of educational systems most of the developing countries have been trying to duplicate, particularly from the West, have been going through changes based on technological advancement that will meet the needs and aspirations of the existing generation of that society. Since their concept of construction is strictly based on their own needs and interests, the writer is of a strong opinion that developing nations must base their educational systems upon calculated plans which when executed, will effect development.

Our responsibilities demand more than the intellectual interment of the present. We need to accept the present for what it is, but need also to look forward. The attempt to understand the process and meaning of our involvement in the contemporary predicament is a first step. We cannot retreat from the current realities of technology, institutionalism, an interdependent world, and the necessary rational discipline through which we might confront our social responsibilities (Itzkoff, 1976, p.7).

Proposed Methodology Toward Strategies for Education Reform

1. Specify clearly the goals and objectives of the proposed change and establish a timetable for its achievement. There will be adequate prevention of grandiosity and disillusionment which will enable the change agent to assess clearly the position of current events and make corrections where necessary.
2. Planned phasing-moving from the experimental demonstration from one step to another to a larger territory. Since this stage forms the core of the discussion under this issue it will be expanded.
3. Model demonstration sites should be established in the regional capitals to develop educational practice and to train personnel. These centers should be well funded and equipped to evaluate the practice and disseminate its results rapidly throughout the system via conferences, newsletters, radio announcements and most importantly by training workers across the country to receive input from these projects concerning effective and ineffective methods.
4. Building an ethos around the practice, for example, Youth Tutoring Youth programs: While improving the learning of other children, they also increase cooperation and develop power, resourcefulness and creativity of children. It should be realized that these results give the program a comprehensive social meaning which captures attention, wins constituencies and may gain legislative support and media attention. These elements

give the program drive and prominence. It may even increase the motivation of the youngsters, teachers, administrators and other citizens involved. Such an atmospheric effect can sustain the program in motion and keep enthusiasm in balance. This ethos is nurtured by developing a sense of mission, media attention, particularly by the filming of the model demonstration programs, visits, conferences and materials that with the concrete and specific including ideological and broad-range plans.

5. Intensive and advance training of cadre: This important aspect of training for the implementation of a large-scale program should not be overlooked. This training can be done at the model demonstration centers, work sites, and conferences. Personalities involved are school principals, headmasters, headteachers, teachers, administrators, program supervisors and community board members. It is extremely important to involve the consumer of the service because "The consumer is a key agent of change and a major factor in the productivity of a service (Gartner and Reissman, Teachers' College Record, 1974, p. 353).

To ensure success of the program there must be someone solely in charge of the program at the local level and in the large-scale effort without conflicting responsibilities; expeditors, trouble shooters or educational change agents should be quickly dispatched across the nation to assess problems that can be corrected on the spot or later by a high-powered commission.

Change is not an easy process. For a change to be considered useful a very effective planning to serve as a foundation stone must have been laid. It may be true

that some countries have already begun to design and implement important reforms and therefore need to determine how many preconditions they have fulfilled. For this reason, we shall examine some preconditions for serious educational reforms. A two-phase approach to developing a national strategy will be suggested in addition to others. The first, is a phase of awareness and a transition from the present system, the second is a reorganization of learning. Each phase offers several reference points which might enable planners to determine how far they have gone and what is left to be done. Combinations of these points can be used to construct a national strategy.

According to Simmons (n.d.) there are several assumptions underlying the scheme for the design of a new investment strategy. Present education systems seem to have much less an impact on learning than previously imagined. The other one is that the kinds of cognitive skills that are learned in school are much less important for lifetime earning and satisfaction than we had thought. Given present trends in the use of resources for formal education, an increasing number of countries fact the immediate decision as to whether they should either regularly transfer resources from other sectors to meet the social demand for schooling, or strictly limit resources from other sectors to meet the social demand for schooling. The political pressures created by a decision to limit expansion, when combined with the inefficiencies and inequities of the present system are encouraging some planners to seek alternatives to costly formal education. It is the major concern of this paper that the problems are considerably serious with our ways of thinking about investing in education that our immediate efforts should be centered on dealing with right and crucial issues. We may now examine the analysis of Phase I which is focused on awareness and transition. Under this heading we shall deal with: (a) demand for knowledgeable manpower, (b) supply of manpower, (c) design for increased equity, and resources for transition.

Phase I: Awareness and Transition

Simmons lamented over the road of educational reform which is littered with rusting wrecks. Emphasizing the claim of Lawrence and Katz, he stated that forces can be allied against changes in the structure and processes of mass education are among the strongest in a society. It is for this reason that basic economic or political changes usually have to take place in a society before fundamental educational reforms can occur. Phase I is therefore considered the crucial initial stage in determining whether or not a country is ready for the reforms implied in the options of Section III.

(a) Demand for knowledgeable manpower

The economic demand for manpower is generated by the creation of new jobs and replacement of workers leaving the workforce. This is only one dimension of the social demand for school places which reflects both parental and employer requirements. Furthermore, the economic demand is for both experienced and inexperienced workers. In the past, it was assumed that school leavers could satisfy the demand for experienced workers. Failure to specify job characteristics accurately is another reason for inaccurately specified manpower demands. What are these abilities? To what extent are they substitutable across occupations or within an industry? Is there a minimum treshold of competence that employers are seeking. To what extent do employers use the amount of schooling or the number of certificates a candidate has simply to limit the number of job applicants, with virtually no reference to the skills that the years of schooling may imply? The tax supported in-plant training schemes in Latin America; Caspedes and Zymelan stated categorically that in most systems of technical education, there are no incentives for employers to participate in schooling decisions. The first vital step in the

transition to a system considered more effective would be to hold discussions about the characteristics/manpower demand among employers, students and teachers about these and other questions. It is quite strange that virtually no information flows between these three groups now, there is no consultation by the educational planners about questions of the ability characteristics for jobs.

(b) Supply of skilled manpower

There are two basic supply side issues to be considered. The first is the extent to which worker characteristics required by occupations are enhanced by schooling. The second is the extent to which non-school experiences shape the desired traits more efficiently than schooling. For the first issue, are primary school graduates learning to read the national newspapers and then retaining this ability? Are they learning how to learn and to enjoy it? Is rural education supplying useful abilities? Is the desired political socialization and modernization taking place, as it is assumed they are, or are the schools having a perverse effect? Is vocational education meeting the needs of workers, farmers, and managers?

There are several questions to be raised in connection with the influence of non-school factors. (a) Can the desired skills be best learned through apprenticeships or on the job training? What abilities can be effectively developed in classroom situations? And (b) Can skill training be more effective when it follows a period of work, rather than precede work experience, assuming students may be more motivated and their objectives more clear? (c) Finally, to what extent is schooling important for promotion once in a job? How good an indicator of useful abilities are school examinations? Is there an over-supply or an under-supply of knowledgeable manpower for different jobs? Answers to these and similar questions will begin to describe the characteristics of the supply side.

(c) Design for increased equity

The equity issue seeks to determine whether or not investment in schooling is having a positive or negative effect on the distribution of income. For the countries where data is unavailable, the hypothesis is that schooling is having a negative effect on income distribution. A plan for neutralizing these effects should at least be designed during the transition phase.

(d) Resources for transition

To be able to initiate and sustain discussion on the above three criteria requires leadership and expertise for initiating, evaluating and managing change. Expertise must accompany leadership. Leadership to provide the inspiration and management is required to raise public awareness of the issues and to use the expertise to propose solutions. Expertise means individuals with or without formal training as education experts, who are willing to explore the above questions with an open mind, and then design and implement experiments with attractive solutions. The existence of research institutes or substantial funding, while offering advantages, are not preconditions for reform.

Based on his conviction, McGregor stressed that when the questions raised by the above four criteria have been studied and the level of awareness of the need for reform is established, and when a feeling of the urgency for reform has been established among both procedures and consumers of formal education, then it is possible to consider moving to Phase II.

Phase II: Return to Learning

If the past strategy is considered unprogressive as compared to the evidence of analysis presented in Section II about the determinants of learning and the contribution that schooling makes to learning, satisfaction and growth, then planners, producers and consumers of formal education need to revise their expectations about the returns from the investment in schooling. There is the need for more modest objectives to be substituted for the old ones.

Two objectives may be reasonable replacements for the present objective of certification for its own sake. First of all, learning how to learn should be made more explicit than it is at present. For instance, learning how to define and determine problems and establishing optimal solutions should not be left for post-B.A. management training courses. Developing methods for the critical appraisal of other sources of information like radio, television and word of mouth would be useful. In the second place, the process of learning should be more enjoyable than it often is if it is going to be actively and profitably used over a lifetime. The effect of schooling is often to damp the desire for learning in all but a few whose curiousities and motivation persist despite the effects of schooling.

It is anticipated that successful achievement of these two objectives may in fact lead to more productive and less alienated individuals, but only a return to learning will provide the needed evidence.

(a) Motivation for reform

Discussions on innovations and reforms have become a great concern for several people in various countries. Commissions are faced with the responsibility of examining

the strengths and weaknesses of the options. Such discussions show evidence of concern and are much related to the transition phase to improved learning, but evidence of a deeper motivation for reform should emerge from the successful completion of Phase I. The supply and demand characteristics should have been studied. Alternative designs to use investment in education either to neutralize or to enhance equity effects should have been prepared and debated. Progress on these dimensions would provide evidence for the existence of leadership and expertise. These achievements would serve as an evidence that sufficient motivation for reform existed to begin the planning and investment of Phase II.

(b) Information for innovation

Whatever be the field of study, most countries are facing the challenge of reinventing the wheel when they tackle their similar problems. Usually, innovations diffuse slowly; some potentially useful innovations have not been widely tried. They range from (a) primary-level science curricula adopted for use by semi-literate teachers; (b) farmer-oriented radio programs; (c) short course paramedical training; and (d) ten-minute modules for teacher retraining. According to Simmons, these innovations have not spread, in part, because they did not have the massive commitment, experimentation and organization that the new seed varieties enjoyed. Unless countries have access to ideas and innovations that have been successfully used elsewhere, they risk repeating years of experience gained elsewhere. In this regard, potential reformers must have easy access to the available information.

A fair understanding can enable poor countries reduce their dependence on short-term consultants or resident experts. Rogers and Shoemacher stated that commonsense is supported by the findings of innovation research that hearing a new idea is only one element in deciding to adopt the innovation. It has to be seen in action, thoroughly

discussed, and experimented with on a small scale where there is no trace of risk in failing. It must be admitted that the experience of innovation in other countries is not enough; it has to be synthesized according to local needs, and then experiments designed to test the efficiency and effectiveness of the proposed innovations. The processes of experimentation serve two purposes basic to reform: (a) the test of the innovation and resulting adaptations; (b) the learning experience and resulting confidence that the experimenters develop. The innovation becomes theirs not only because they thoroughly understand it after the experiment, but also they have probably adapted it to local needs, thus giving them increased pride of development. An essential link in the successful spread of the new wheat and rice varieties was the training of local experts at Chapingo and Los Bamos in order to participate in the testing of the innovations in their own countries. Only rarely can outside experts achieve the required effectiveness in either experimentation or widening ripples of confidence in the pool of skeptical potential users because they are outsiders.

(c) Technological and legal change

Schools are also considered a technology since they combine labor and capital to improve human capital. In a way schools have not been that much effective a technology as we would like to believe. Thus, a major dimension of the return to learning will be the exploration of learning technologies like the apprentice system, the integration of learning and working, and parent-child interaction.

An equally important dimension of technological change is the scale and complexity of machinery that individuals will have to operate and repair. Unnecessary sophisticated and fragile equipment in developing countries is usually not economically profitable for the owner or the nation. Successful experiments range from printing presses to water pumps and tractors. The use of appropriate technologies will have the

effect of depending less on imported repairmen when several assemblies and disassemblies will make the handler an expert repairman. Vocational skill can become available to almost anyone with curiousity, motivation and the basic psycho-motor skills, rather than to the domain of a few experts.

The law often supports mandatory formal education and gives the monopoly of formal education to the state. Private education is usually under state supervision, and examinations for certificates are the same as in the state schools. When the effect of these laws is combined with the prevailing social sanctions to get as much formal schooling as possible, there are neither possibilities nor incentives for alternatives to formal education to develop.

The Political Economy of Education for Development

Failure of Present System

For more than a decade formal education in developing countries has not been meeting the needs of the poor. Formal education mainly provided training for urban, white-collar jobs while most jobs tended to be manual and in rural areas. The students from very poor families are generally unable to continue formal education to the university level. In some cases several average students who obtain post-primary education are unable to seek admission to higher institutions because only few persons are admitted for advanced studies. For instance, the Specialist Training College in Ghana can admit more than twice the number of its present enrollment. Between September 1967 and June 1971 when the writer of this paper was a student of the above-mentioned institution, the entire student population was about 450. Judging from the availability of space and materials at that time, the said institution could have admitted

more students for formal training. Unfortunately, the number of intake was so much limited that only the above average or "lucky" applicants could gain admission; this is true of several institutions in many developing countries. What the poor learns from formal education is that they are failures. Educators, employers and high income earners reject them as unfit. Legitimatizing their claim, Gunnar Myrdal stated that the poor are not educated to see their interests and they are not organized to fight for their interests (p.3).

Let me illustrate my point with a few facts from Pakistan and four other countries in Asia, Africa and Latin America.

a) About six percent of the labor force is estimated to be unemployed and twice as many are seriously underemployed.

b) One-third of those who are unemployed, about one million adults, have completed primary education or more.

c) Forty percent of the vocational school graduates have been unemployed for two to four years after graduation.

d) Although universal primary education has been a government objective for almost 30 years and total enrollment have been steadily increasing, the percentage of children completing primary school is falling. Only 30 percent of the present 15-19 age cohort have completed primary school, as opposed to 35 percent of the 20-24 age cohort.

e) Because of dropouts and low reading achievement, we can say that less than eight percent of those who turn 12 years old each year can read and understand a newspaper.

Given these conditions, the 36 percent of the nation's education budget allocated to primary education goes either to producing

generally illiterate primary school leavers, or to financing a most expensive, and inefficient, means of selecting students for secondary education.

f) At the nation's eight universities we find that classic diploma factories. In one hour teachers grade 30 examinations, each covering two years of a student's work. While observers agree that student and teacher performance has fallen, the number graduating with highest honors has quadrupled. Four years ago only 10 percent graduated with "first divisions," and now 40 percent do. Some university libraries have added no books in the past several years. Instead, funds have gone into more buildings.

g) There is only one physician for 24,000 rural people, one of the lowest ratios in the world. The doctor-nurse ratio is about three doctors to one nurse, instead of the other way around (even with these conditions, the government allows many medical doctors to emigrate.

h) Free education in Pakistan, gives equal opportunity to the poor to reach high-paying jobs in theory. The data, however, shows that children of upper-income families are over represented by 2,700 percent at the university level in comparison to the percentage of upper-income families in the population. Not even Arthur Jensen, the geneticist, could argue that the rich are 2,700 percent more able to benefit from a university education.

The case of Pakistan is only used as an illustration. Similar problems exist in countries with different educational and economic background; examples are Brazil, Liberia, Tunisia including Ghana. These problems may be grouped into three categories:

1. inefficiencies within the schools and the education system which are measured by high dropout rates, illiterate graduates, lack of materials, e.g. paper, pencils, textbooks, as well as teachers;
2. mismatch between what the schools are producing as opposed to national needs - these problems are seen in educated unemployed, parents and citizens from low-income groups who lack information about sanitation and childcare;
3. and inequities in distributing both educational opportunities and educational results to the rural and urban poor.

These problems have been in existence for a long time and appear so intractable, that analysts have reluctantly reached four main conslusions.

i. The analysis of international educational planners concluded that it is not due to lack of knowledge and planning that is why education systems have been so slow to change, rather the inability to use better information and carefully prepared plans. Either they are shelved or partially implemented.

ii. Political and economic institutions are the determining factors of both formal and informal education. It therefore means that educational reform depends on successful economic and political reform. An attempt to replace an "irrelevant" academic curricula with vocational training will be resisted by the leadership in most countries since the former tends to reinforce the existing power structure. The authors of the Vth Plan in Pakistan, which called for reducing expenditure on higher education argued that "the interest groups affected . . . are likely to protest vigorously."

iii. Torsten Husen, the Swedish educator and reformer

acknowledged, within the past ten years around the world, "the mood has swung from the almost euphoric conception of education as the Great Equalizer to that of education as the Great Sieve that sorts and certifies people for their (predetermined) slot in Society." (p.7).

iv. Evidence suggests that further investment in most aspects of the existing education system of non-socialist developing countries would be at the disadvantage of the poor.

What can a government such as Pakistan's, which has made some commitments toward increased equity and participation, do for the one million educated who are now unemployed, including the next million who will soon suffer the same fate? When the number of new graduates from high schools and universities are reduced, the middle and upper class, which put the government in power, would withdraw their support. These groups want more school places for their children, not less. If the government required employers to hire the one million educated unemployed, thus increasing by 5% the number of their employees, the employers would complain of higher costs and lower profits. They would threaten to withdraw their political support. Above all, if the educated unemployed were hired, it means the two million uneducated and unemployed might take to the streets to demand equal treatment with the educated.

The above includes the numerous problems to be solved by the government and people of Pakistan. We may therefore take a look at "expert solutions."

Many educational experts have recently agreed that nonformal education is a useful approach for poor countries. They urge the expansion of nonformal education to reduce the mismatch between educational supply and employment demand. Most of them agree that the expansion of formal education at the secondary and higher levels should be established at present rates of enrollment growth, or slowly reduced.

Experts perceive the training of specialists in all aspects of rural development as

the greatest economic need. "Educational systems have been irrelevant to the needs of developing countries for the past two decades." (World Bank Authors, 1974). The Bank then urged a program of nonformal and basic vocational education. Observers have not been enthusiastic about the change because the substitute has been little tried. Ministers of Education have developed cold attitude toward such suggestions. The reason is that the expansion of nonformal education will cut into the funds allocated for formal education which is more prestigious and in greater demand. Yet, there is another problem which is equally serious. The expansion of technical and nonformal education will reinforce a dual system of education, with one side of the system training students for manual labor jobs, and the other for mental labor. One side represents rural employment and the other is for urban. The dual system reinforces the social and political status quo; unchanged, it adversely affects the poor and their interests. The nonformal strategy works against the poor, except in countries like China and Cuba where the reduction of poverty is the highest priority of the leadership. It appears nonformal education streams poorer children into manual jobs and reinforces the class structure.

The rationale behind the opposition of nonformal education among educators and middle-class parents is understandable. They feel that formal education is relevant to their needs. Lower-income parents would also object to a dual education system that would stream their children into manual jobs while still in primary school.

Illustrations of Education for Self-Reliance

Education for self-reliance and participation takes many forms, however, the problem-posing process is shared across them. Each of them has its own strengths and weaknesses. This learning process which appears best adapted to the needs of the poor, will not achieve its potential if the technological conditions and political support for

change are not also present. The possibilities are best described through examples which include Brazil and China.

The Problem-Posing Method: Brazil

Paulo Freire, as coordinator of the national literacy program in Brazil, would go to a village and converse with people. He would request them to help him to observe the village life. They would assist him to take pictures of scenes and activities going on in the village - activities that are common and familiar to the people. After the processing he would invite them to describe what they say in detail, write words under the pictures reflecting their feelings and action.

Freire would also question the villagers about the contradictions in their explanations. In a particular village, for example, the people described the harvest as being very poor. When Freire asked "Why," some said: "The land is tired." Freire then asked why some of the land seemed productive while the other part seemed tired. They explained that the rich farmers had fertilizers while they didn't. Freire asked them how that was the case. The questions and answers continued. The topics discussed ranged from those which were primarily theological, political, economic in nature to those that were basically philosophical. Very often the people gave fatalistic answers which resulted in contradictions. As a result of this process the people began to think for themselves and became aware of alternative ways of viewing and coping with problems that seemed to be insurmountable for themselves and their communities.

In the process, people learned to read, to care and to have a sense of worth. Their experience was termed "conscientizacao" (awareness) by Freire. Their ability to read and write inspired them to participate in civic activities which they formerly escaped. Literacy, as taught by the problem-posing method, became a means to questioning the

status quo, and organizing to improve their conditions.

Barefoot Doctors: China

A typical example of the adaptation of learning to meet basic health needs is the training of over one million "barefoot doctors" in China since the Cultural Revolution in 1966 (p.19). The aim of this program is to serve the needs of the people, stress prevention, combine western and traditional medicine, and be coordinated into mass medical education campaigns. The barefoot doctors are ordinary peasants chosen by their communities to receive paramedical training. They provide basic health and medical care at the local level.

Barefoot doctors are chosen by their peers on the basis of their interest in helping others, as well as in medicine or science. They are initially trained in the commune medical facilities, (about three months) such courses are offered in the hospitals and medical schools of nearby cities and towns. The emphasis of their training is to maintain ties with their own people rather than becoming part of the elite. The initial stage of medical education is enough basic training to become a part-time health worker, including first aid, diagnosing and treating common ailments, giving injections, some common drugs and acupuncture. About 85% of the medical requests are handled by them. They observe and assist physicians working in order to graduate and work under supervision. They acquire their training in stages until some of them gradually become qualified professional physicians.

In a relatively short time China has significantly upgraded its health care system by instituting a non-traditional system of health education on a wide-scale non-professional training based on community needs, rather than on highly selective, high quality professional medical training which would produce relatively small number of doctors without close ties to the needs of the communities.

As a matter of fact, China has succeeded in laying a solid foundation for the development of more extensive medical services and formed a better trained personnel. The success of this project cannot be underestimated. China has actually trained over one million health workers spread over the largest country in the world.

It must be understood that the success of the program greatly depends on a unique political system which is also concerned with providing a better health care for the people. Countries without a major commitment in meeting the needs of the poor have often tried to implement positive programs only to find them sabotaged by elite interests.

Conclusion

As far as efficiency is concerned, educational systems in most developing countries are inefficient in using resources, and they seldom achieve their quantitative and qualitative objectives. Serious imbalances are observed between the skills generated by educational systems and actual needs of most developing coduntries. In some areas, the number of graduates surpasses the absorptive capacity of labor markets, while in others critical shortages of skills continue to create problems. These discrepancies between the supply of, and demand for skills are caused by a complex set of social, cultural and political conditions and aspirations which condition the development of educational systems. The failure of the systems to respond to countries' needs is accentuated by the fact that educational institutions have been borrowed from developed countries and have not acquired an indigenous character. (World Bank Staff, Education, December 1974, p. 20).

In order to arrest this situation, Robert S. McNamara, President of The World Bank Group, stressed the following:

a) that every individual should receive a basic minimum education as soon as financial resources and the priorities of development permit;

b) that skills should be developed selectively in response to specific and urgent needs, by training the right people, both urban and rural for the right jobs - both in the modern and traditional sectors;

c) that educational policies should be formulated to respond flexibly to the the need to develop educational systems (nonformal, informal and formal), so that the specific requirements of each society might be met; and

d) that opportunities should be extended throughout an educational system for those underprivileged groups who have been thwarted in their desire to enter the mainstream of their country's economic and social life. This must include more equitable access to education for the poor, the ill-fed, women, and rural dwellers, and must provide, as well, a better chance to advance from the classroom to the place of work.

If economic progress is to be rapid and equitable, education will need to be supported by action in other fields such as agriculture, health, nutrition, and employment. Only in such a context can education be effective in strengthening the potential of those developing nations which wish to ensure productive participation by all in the development process. (p. 11).

The education sector has now become a major claimant of governmental and private resources. In 62 developing countries, the median government spending on

education was above 18% of total public expenditure and the number of countries spending above 20% was increasing even in the 1960's. (p. 27).

All these efforts have been insufficient to provide education for more than about half of the children and adults in developing countries. The only way by which absolute poverty can be eliminated permanently is by increasing productivity. (World Bank Staff, Poverty and Basic Needs Series, September 1980, p. 2).

A major challenge facing developing countries is to find better ways to channel private demand for education into socially beneficial areas.

For the developing world to achieve self-reliance, we should remember that "People can only develop themselves they cannot be developed. Adult education is the key because it will help men and women to think for themselves, make their own decisions, and execute those decisions for themselves." (Simmons, 1978).

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